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Grain

NOVEMBER, 1944



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What about *you*?

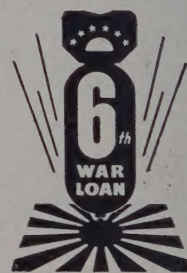
This is no time to relax. No time to forget the unfinished business. It's *still* your war, and it *still* costs a lot.

So dig down deep this time. Dig down till it hurts, and get yourself a hundred-dollar

War Bond over and above any you now own—or are now purchasing. This 6th War Loan is every bit as important to our complete and final Victory as was the first.

Don't "let George do it"—get *yourself* that *added* bond and help finish a magnificent job *right*. The quicker you reach down deep, the better you do *your* job for war, the more you'll contribute to ending the fight. And the quicker they'll come back—the guys that can *still* be killed.

After all, you're safe and sound and *home*. *That's worth another hundred-dollar bond to you, isn't it?*



Buy at least one extra \$100 War Bond today!

Compliments of "GRAIN"

DRYING

Of Soybeans And Other Grains



By HAROLD C. WILBER

A. E. Staley Manufacturing Company, Decatur, Ill.

Before Society of Grain Elevator Superintendents.

I THINK when we talk about the drying of soybeans it means we are going to talk about the drying of all grains, because I do not believe the problems in the drying of soybeans are much different than they are in other small or coarse grains.

We all do more or less drying and all have problems of our own. Some are different than others, so let's talk over our individual problems, thereby helping each other. If you fellows will help me out in this idea I think we probably will get a lot out of it.

No One Knows All

I HAVE dried just enough grain to find out I do not know it all. In fact the further I go the more I find out I do not know all the answers. So in opening this discussion it might be well to review a little of what is common knowledge on the theory of drying grain, i.e., we dry grain by exposing it to moving air of an artificial temperature and humidity, thereby getting the grain to give up its moisture to this movement of air.

Theoretically, at least, and I think it works out practically, the drying process can be broken up into three different parts in which the rates of moisture diffusion are somewhat dif-

ferent. As we start in there is a slower period of drying. That is the period during which the grain is heating up. The grain is cold in the winter time, practically frozen, and has to be thawed. During this period of heating there is probably not a whole lot of drying.

After the grain has come to a temperature the water starts to evaporate on the surface and the drying process really sets in. The drying process is divided into two parts, namely, surface evaporation and the diffusion process.

The moisture leaves the berry, we are told, through a film on the surface. There is a film of air immediately touching the surface of the berry, the humidity of which has some definite relation to the moisture of the berry. The hot air hits this and removes water from the berry into the coil of heated air.

Moisture Movement Varies

IT IS at this point that we get the highest rate of drying. The moisture near the surface moves rapidly to the surface and is washed away by this column of air. After a while we get a more or less dry outside coat, and it is at this point that our drying process slows up.

The moisture in the interior of the berry then starts to move to the outside. The rate at which it moves to the outside of the berry is probably governed by the temperature of the berry and its character. We find certain types of grain in which moisture moves out more rapidly than it does with others.

It is easy to guess that the diffusion process goes on until the grain, if we were to leave it in the drier, comes to a definite balance with the

air surrounding it. But it might be well to remember those three steps: the first, heating; the second, surface evaporation, and the third, diffusion. The first step, heating, is slow drying. The second step, evaporation of surface moisture, is fast drying. (Unfortunately, this does not last long.) The evaporation peters out and the diffusion process sets in, which is slower. THIS is where we use a large part of our fuel, some more in one year than in another, some more on one kind of grain or another.

75% Exhaust Humidity Good

NOW costs are one thing in which we are all interested. I find costs of labor, power, etc., are fixed somewhat by the design of our house, but that we can help ourselves in the cost of fuel. This is an item we have given little study and attention, but we can sometimes help matters.

This air we heat for drying I like to think of as a blotter—something that soaks up water. It costs money. The more we heat it, the more we use, and the costlier it is. The small-

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er amount of air we use, the smaller the amount of heat, the more economical. I found it helpful to measure the figures of the job we are doing at the particular time by taking a sling hydrometer and measuring the relative humidity of our hot air exhaust. That is where the moisture goes—with the cool air a small amount, but not so much.

By measuring the relative humidity, this hot air exhaust, we can get an idea of the job we are doing. On some jobs we get a relative humidity of 40% and up. It is possible to get 75% to 80%, or even 85%. At 80%, however, the heated air is picking up all the moisture we can expect it to. If it is only 40% or 50% we may be able to change one of these factors, i.e., temperature, volume, velocity, or relative humidity, thus helping ourselves considerably.

Type of Grain Determines Diffusion

IF WE get 75% we are getting good results. A lot of times with a standard drier you can build up to that. The fact is that the diffusion process is limited. Sometimes it does not pay to push the process too fast because that moisture moves from the center to the outside of the berry at just about a definite rate—regardless of how much hot air you circulate around the grain it does not seem to hasten the drying. The diffusion process depends somewhat on the temperature, but more on the type of grain.

Recently I had occasion to dry three types of grain at the same time under the same drying conditions, including a hard vitreous yellow corn, a soft chalky white corn with small berries, and some beans. Roughly, under these definite conditions, I got about 4% moisture loss out of the beans, 5% out of the yellow corn, and 7% out of the small-berried chalky white corn. This can be explained in two ways. The smaller berried corn

had more surface in proportion to its volume, and owing to the character of the berry it diffuses at a different rate.

The trouble with most of our drying, and probably that of you fellows, is the difficulty of having stuff shoved at you. You have to get it through. We can do that, but we don't get our efficiency in drying. On the other hand we occasionally have some time to do the drying job, the stuff is not going out and we can do what we think is a slick job—something fair to the grain itself. A lot of times we have to cut in between—the happy medium of the two extremes.

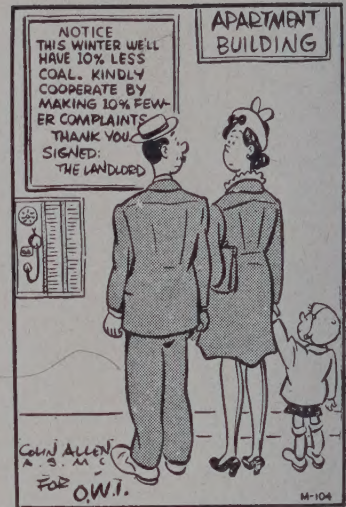
Slow Drying Avoids Case-Hardening

IF WE are pushed, of course, there is just one thing to do, and this is to put the heat up. We get faster evaporation. We speed up the diffusion. Unhappily, I am afraid a lot of our drying is done under these conditions.

Now if we go in for quality drying whereby we are kind to the grain we are drying, we know slow drying is much better. Diffusion processes go on, we wash the moisture away as fast as it moves to the outside of the berry, and when we do that we get away from chaffing, case hardening, etc., caused by fast drying.

If we dry too fast the outside shell becomes dry. The drying of any material, grain, lumber or whatsoever it be, with moisture taken away rapidly causes the volume to shrink. This happens in the case of beans. The outside shell, losing its moisture, shrinks. The inner part, more or less soft, does not lose its volume, so the shell tends to break away from the inner part of the berry, which shows up later in breakage in handling and other detrimental effects.

There are ways we can keep that down if we are careful. One thing we can do with that type of drying at times is to cut the volume of air and



raise our relative humidity. When we do that the evaporation is lower at the surface and goes on at about the rate the diffusion process goes through—balanced—and cutting down case-hardening.

Grain Heat Most Important

WE WONDER how fast we dare to go and how much heat we can put to it. One thing you have probably found out, it does not always depend upon how hot the air is as to what point we heat the grain. In other words we may run the temperatures up but the evaporation of water absorbs the heat, and the grain does not go as close to the temperature of the air as we think. If possible to measure the temperature of your grain at the point of maximum you would find out that you can shove your air temperature up possibly more than you thought you could because your grain is not going to reach the temperature of the air.

Another factor is that it is hard to get the temperature of grain, particularly if you take the temperature within the drier. Shoving the ther-

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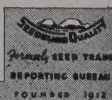
The Steinlite electronic moisture tester is **FAST, ACCURATE** and **EASY TO USE**. It is operated ... very economically ... on the radio frequency impedance principle. Compact, easily portable, durable.

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momometer down through the grain and the warm air moving through, the temperature you get is a cross between the temperature of the grain and that of the air moving through. The thing to do would be to take a sample out and immediately test it outside the drier. In this way we may find the grain is not being heated as much as we think it is. In this case, we can give it more heat. That is the temptation we have when we have the stuff piled up ahead of us.

Questions and Answers

Q. Isn't batch drying better than continuous drying? **A.:** No, it is pretty well agreed now that continuous drying is better. The Canadian government does not even allow batch drying any more.

Q.: If we find we can only get our temperature up to 210° or 215°, is that considered excessive? **A.:** I would not consider it excessive. (Discussion followed regarding temperatures of 230 and 240.) I would hate to go above 225°—that will boil away a lot of water.

Q.: By cutting the volume of air is the temperature increased? **A.:** Yes.

Q.: The question arises as to whether it would be more efficient to put a smaller volume of air over the grain at a higher temperature or a large volume of air at a lower temperature? **A.:** I think the answer is that this blotter we are using in the business of drying grain costs money. The less we use the better. If you can cut your volume and raise your temperature and still do the job, you are approximating more efficient drying, but that all depends upon the job you are doing.

If you are going to dry 17% grain down to 11% it is hard to get that air to pick up the maximum load of moisture. That may not answer your question straight out, but it seems to me that is one of the things you and I have to use our own judgment on. It is difficult to dry grain by rule of thumb methods because rules that fit one factor do not fit another. Incidentally, natural gas has been used to dry grain, and very satisfactorily.

Drying From 25% to 10%

Q. What about drying soybeans averaging a moisture content of 25% or higher down to a moisture content of 10% or lower? **A.:** That is a big job. It seems to me it could be done, but would be a slow process. The diffusion process enters into it. If we had all the time in the world and could run our temperatures down I see no reason why we could not do

it. I had occasion at one time to bring some wet corn down to 11%, but I didn't have much luck. I could not get it from 20% down to 11% with any degree of efficiency at all. I got out of that by taking the 20% down to 15% and mixing that back against some natural grain, putting it into the bin and letting it temper. This works more effectively in warm weather when moisture will move faster than in winter.

Q.: We use a solvent extractor and our beans have to be cracked and ground in order to do that. Each

bean has to be approximately the same moisture content. If we were to take some wet beans and mix them with dry beans direct to the drier, even so, the beans would not dry evenly. We would have one bean at 15% moisture and another at 8%. When they got to the cracker and grinder the 8% bean will grind up readily, the others will flake out. That is our difficulty. We could not get them to dry evenly. To get the high moisture beans down where we wanted them we had to dry the others lower than necessary and subject

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Conveniently packaged—Regular Larvacide comes in liquid form in cylinders 25, 50, 100 and 180 lbs., also in handy 1-lb. Dispenser Bottles, each in safety can, 12 to wooden case. Larvacide 15-Mix comes only in 50-gallon drums. Stocked in principal cities.

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them to quite a little heat, which is not too good for the structure of the beans.

A.: My suggestion would be to blend that stuff away to storage and depend upon those beans in storage to even up. In treating corn, putting the kiln dried corn away at almost summer temperatures, and getting an evening up of moisture and then re-drying, we got out of a jam. It was at extra cost but we have to do a lot of things we do not like to do.

Experimented from 160° to 300°

Q. We have a drier which we can operate at any temperature we care to. We experimented from 160° to 300° and our experience was that at the high temperature—over 220°—we case-hardened, and from thereon our process was very slow and inefficient.

A.: Do you not think that this was about what went on: 1—You got the dry outside coat, which shrank away from the inside. 2—After it had case-hardened it would not allow inner moisture to pass out? Our tests indicate that wherever we hit a temperature between 213° to 220° that temperature is most efficient.

Q.: Have you any idea how hot the beans get under such temperatures? A.: That is one thing to remember. Sometimes we can use a little higher temperature than we imagine we can because the grain does not reach that level. The thing to do is to use a spout to get a fair sample and test it immediately, avoiding any chance of cooling. Another

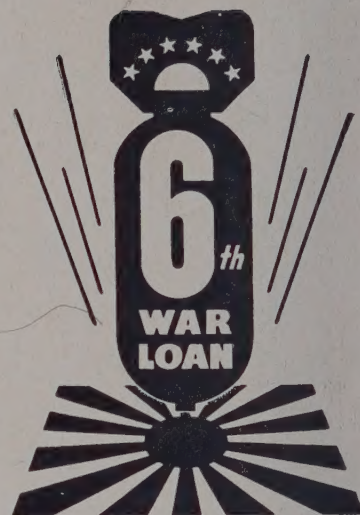
is that the different amount of surface in relation to the volume of the berry may affect the rate of drying. As mentioned before, I found out that where I could get 4% water out of 17% beans, I could get 5% out of vitreous yellow corn, and 7% out of runty, light weight chalky corn.

Q.: Would it be possible and practicable to take the air back from the exhaust in the lower part of the heater and re-heat it? A.: I do not know about the hot air exhaust. We are taking the exhaust from our cooler and have set up an arrangement of ducts and dampers whereby we can re-heat that. In regard to the hot air exhaust, that is strictly a question of engineering. The humidity of the hot air exhaust may offset the saving of heat.

Recirculate Exhaust Air

THE recirculation of air from our cooler exhaust, which will cut down surface evaporation somewhat nearer the diffusion rate and prevent case-hardening, is being planned. By mixing it and recirculating with heat from the heater our tests show that we have added some 5 or 6 grains of water to a pound of air, which is 14 cu. ft. We will raise the humidity of the drying air but a very little, and will save about 60,000 cu. ft. of air at a minimum which has been heated from freezing to 125°—an appreciable savings.

In summer drying it might be a different proposition. Where the air outside is 90° it might not pay, but in winter drying I am convinced it



will do so. There should be a system of dampers whereby we can throw it to the outside air or recirculate. Our tests showed that during weather about 15° to 16° above zero our savings were 18%. Zero weather or lower would have increased our savings to a higher level. I think these things are worth attention.

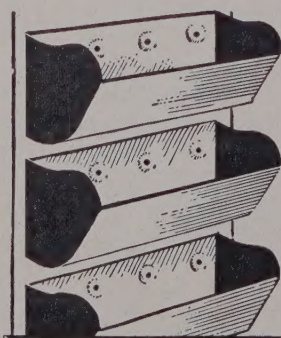
Q.: What about the hazards of grain drying? A.: Experience demonstrates the importance of absolute cleanliness, and of putting down the drier at short periods and cleaning out the ducts. One of our members had a fire drying beans and the only way he could explain it was that the blaze started from spontaneous combustion of the bean dust. In the case of indirect drying one's steam coils must be kept free from dust and immaculately clean.

I will be happy to answer any other questions you may have by mail.

Since Pearl Harbor, some 350,000 workers have become industrial 4-Fs because of accidents. Many of these accidents occurred in homes.

Without Canadian radium the field services and hospitals of the United Nations' armies would be almost helpless... Canada is producing five times as much armor plate, guns and tools as she did in 1939... She is producing sixteen types of gun carriages and mountings, although before she entered the war she had never manufactured a big gun... She has delivered 100,000 units to date... Canada has the largest small arms factory in the British Empire. She has produced more than a million rifles and enough ammunition to fire 300 shots at every soldier in the German army... Canada is second only to us in building ships, although she had not built a seagoing cargo ship in 20 years when Hitler marched on Poland... Canada supplies all of the signal corps of the United Nations with a large amount of their equipment, including nearly 100 types of signalling sets... Canada has developed a new secret explosive for the invasion—the most powerful in the world.—Walter Winchell.

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RAILROADS DESERVE GREAT CREDIT

Chicago, November 15:—Railroads are now handling about 2½ times the amount of freight traffic and more than 4 times the volume of passenger business than they did before the war, the Car Service Division of the Association of American Railroads said in a report which will be submitted today to the annual meeting of the Member Roads of that Association.

"They are carrying," the report added, "virtually double the load of the first World War, and they are doing it with one-fourth fewer freight cars, about one-fourth fewer passenger train cars, and one-third fewer locomotives than in 1918. The reduction in freight cars alone amounts to about 600,000 units. The traffic has been handled without serious car shortages, or loss of production time at factories, or loss of foodstuffs, account spoilage, for want of transportation by rail.

EXPORT MOVEMENT UP 223%

"Today, after almost three years of handling the constantly mounting war load in a manner satisfactory to everyone, the old Iron Horse may be puffing and blowing, but he is still going strong and showing no signs of faltering."

The report pointed out that in the first half of 1944 compared with the same period in 1939, there were increases of 153.4% in revenue ton-miles, 114.% in ton-miles, 350.3% in passenger-car miles, and 223.2% in the amount of freight moved by rail to various ports for export.

One of the most serious problems facing the railroads is the handling of passenger traffic. Excluding commutation travel, railroads in the first half of 1944 carried 21,854,000 more passengers than in the same period last year while passengers miles increased 7,401,000,000.

Penalty on Overloading

Effective Dec. 7, ICC order No. 255 places a heavy penalty on overloaded freight cars. It defines an overloaded car as one "in which the weight including cooperage material is in excess of the load limit stencilled on the car," or in the event no load limit is shown the order says "the car shall be considered overloaded when the weight, including cooperage is greater than 110% of the marked capacity of the car." Penalties are severe.

THE ARGENTINE WHEAT CROP is expected to yield from 185 to 205 million bushels if the present favorable weather continues. Last year's crop was 250 million bushels.



IN THIS WAR the railroads have done twice as big a transportation job as in the first World War.

But they are doing another job which may not be so well known, as is shown by these contrasting facts:

In the last war, the operation of the railroads took money out of the United States Treasury.

In this one, the railroads are putting money into the Treasury.

In the last war, when the Government took over the railroads, even though freight rates and passenger fares were raised, Congress had to appropriate \$1,600,000,000 to meet deficits.

In this war, the railroads have been managed by their owners. A far bigger and better transportation job has been done. And, since Pearl Harbor, the railroads have turned into the United States Treasury the tremendous sum of \$3,250,000,000 in taxes—and today are paying federal taxes at the rate of nearly \$4,250,000 every 24 hours.

And, on top of all this, the railroads in the same months since Pearl Harbor have paid for the support of state, county and city governments another \$750,000,000 and are today paying state and local taxes at the rate of \$800,000 per day.

That's five million dollars a day paid in taxes — ten times as much as the owners receive in dividends.



AMERICAN RAILROADS

ALL UNITED FOR VICTORY

WHEAT GOES TO WAR

By **MARVIN JONES**, War Food Administrator

WHEAT is older than history. The Chinese used it 2700 years before Christ. It was used in Egypt a thousand years earlier than that. It was cultivated by the prehistoric races such as the Swiss Lake Dwellers, and has been found in the pyramids and in Egyptian tombs. Wheat is often referred to in the Bible, which tells of separating the wheat from the chaff.

The ancient civilizations of Babylonia, Egypt, Crete, Greece and Rome were based on wheat as one of the principal food plants. The stories run back until they are lost amid the mysteries of tradition. All stone age findings include grinding bowls and pestles. These were the first crude flour mills.

Through the centuries wheat has been the chief ingredient in the "staff of life." Wheat therefore is of universal interest.

When the history of this war is written, there will be one chapter on wheat. That chapter cannot be written yet because no one knows the ending. But the story to date deserves our attention now.

At Battlefield In Many Forms

WHEAT was important in the other war—as food. It is important in this war—as food and more than food. As a basis for industrial alcohol it goes to war as synthetic rubber in a hundred forms. It goes to war as smokeless powder for our guns. It goes to war as shatterproof glass for our planes and trucks. Its use as feed for livestock is now at a rate four times what it was pre-war. Because of this use by livestock, wheat now goes to war on fronts throughout the world in concentrated forms, as dried eggs, and dried milk, as butter and cheese and meat.

There are other differences. Wheat is a bulky food requiring a lot of shipping space in proportion to its food value, but during the other war we sent 200 to 300 million bus. a year to our Allies in Europe. In this war we have become temporarily a net importer of wheat. Now we use more wheat as livestock feed and for industrial alcohol in a year than we shipped to Europe in any two years during the other war.

And here is another difference. During the other war we in the United States were asked to observe two wheatless days a week, and we were asked to have one wheatless meal a day. We remember the food regulations of the Food Administrator of that time which forbade us to buy wheat flour without buying an equal amount of substitutes.

In March 1918 the Food Administrator asked that no wheat or wheat products be served in hotels or restaurants until after the harvest. In this war we are now actually eating 60 million bus. per year more than we did pre-war and much of this is in the form of enriched flour and bread. That is another important difference. There are others.

Didn't Let Them Down

IN JANUARY 1918 the British Food Controller sent a cable to the United States Food Administrator which read in part as follows: "Unless you are able to send . . . wheat . . . I cannot take the responsibility of assuring our people that there will be food enough to win the war. Imperative necessity compels me to cable you in this blunt way. It now lies with America to decide whether or not the

or for unexpected needs that may develop.

Fortunately, for the present at least, the world has an adequate supply of wheat. The principal problem is more one of transportation than of supply.

This fact suggests the ever important problem of what will happen after the war. We must remember that wheat is a world commodity, with many foreign trade complexities. It is probably the most widely grown food crop in the world. It grows in 50 different countries. It is important even in China, which normally produces more wheat than any other country in the world except our own and Russia.

Because of this importance of wheat both as food and feed, domestically and in world trade, wheat has always been an agricultural problem child of this and other governments.

Many nations have tried to meet this problem. Even before the war all important wheat exporting countries had various direct government measures designed to support wheat prices. All the foreign major exporting countries now have guaranteed prices to producers.

Plan To Keep Elevators Full

UNDER these conditions it is wise to have the fullest possible cooperation with all these countries to avoid alternate periods of surplus and scarcity, which injure all concerned and in the end benefit no one. Progress has been made along these lines.

A wheat agreement was entered into in June 1942 by the five principal export wheat producing countries: the United States, the United Kingdom, Canada, Argentina and Australia. That agreement lays the groundwork for international cooperation once the war is over. It provides for the full use of world markets so that consumers will have plenty, while the producers will be protected against the disastrous effects of widely fluctuating prices.

We, of course, must have a full part in those markets. We want expanded production for expanded use just as far and as rapidly as it is possible to achieve it along practical lines. This means, of course, expanded production of finished articles as well as of raw materials, and at fair prices for both.

If by joint action we can solve some of the basic problems affecting these important commodities in foreign trade, such as wheat, for instance, we will have taken an important step against misunderstandings and will have made real progress toward maintaining peace.

KID VICTORY



Allies in Europe shall have bread . . ."

We furnished them that bread. This war will not be won by bread alone, but by wheat in other forms as well.

Due to soil conservation and other improved methods our production of wheat for the past three years has been the largest of any three consecutive years on record. Our goals for this year call for a still greater production. Wheat is a national crop.

To protect our supply, we have been drawing on Canada's large stocks of wheat to help meet our extra needs. Transportation difficulties prevent bringing in as much of this Canadian surplus as we would like, but substantial shipments have been made. Meantime, this reserve supply exists as a safeguard against the possibility of a reduced crop this year or next,



By all means • **BE AN OPTIMIST!**
BUT BE PREPARED FOR THE WORST!

Look on the Bright Side—Hope for the Best. But bear in mind, you can't "*Kid*" yourself out of having a Dust Explosion.

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Play safe with Robertson Safety Ventilators. You'll have a mighty good reason for feeling comfortable when you *know positively* that explosion hazards have been *definitely* minimized.

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Tells of Safety Accomplishments



Safety Committee Chairman OSCAR W. OLSEN Reports

On Progress Made During Past SOGES Contest

AT this time it has become the custom for me to make an annual report of the activities of the SOGES Safety Committee.

This year my report represents more or less the safety activities of all our members, as during the past year the superintendents were very active in accident prevention work. Good results were attained for which we are not trying to give the Safety Committee exclusive credit as so many helped as individuals.

As has so often been stated, safety is not a one-man job, and the good results attained during 1943 show that we can attain our objectives when we all try.

Warn of Unusual Conditions

THESE are critical times and our problems are not yet all solved by any means. Therefore I must again ask that you keep on the alert and advise us promptly on any new situations that develop. We may not always be able to help you with your

problems, but we will try. If we know about unusual conditions promptly we can in turn warn the others so that they will not come to grief on some situation which you may already have taken care of in your plant.

During the past year we have worked with a greatly increased membership on the Safety Committee, and we have had very good help from these added members on two of the projects which are about completed, namely:

1. A "Study Course for Foremen and Safety Committees." In a general way this outline will follow the headings in our Safety Manual, but we have attempted to give a full explanation of each item so that these men will know what causes the hazard in question, what accidents have occurred from these conditions, and what steps can be taken to correct or eliminate the hazard.

This study course will give your foremen groups or safety committees material for use at meetings for a long time to come, will be especially valuable for use at plant meetings, and will be particularly helpful where there are no special problems for discussion. In this course, also, we have attempted to give very specific information about conditions which are peculiar to our industry.

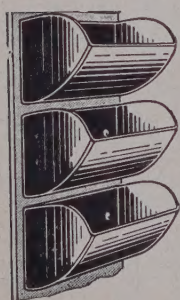
General safety information is available from many sources, but it is necessary to wade through volumes of data to find material that is exactly suitable for application to our daily operations. On this particular point our Safety Committee members have been very helpful and some of them have spent many hours assembling information that would aid us in preparing material that will be useful to all of you. I think you will be well satisfied with this text when the Study Course is in your hands. I believe we will be able to arrange for the printing of this booklet before very long.

of the members discuss a few subjects on which we would like more information for this Study Course. This is a joint effort and we need help from all of you to make this text fit our needs.

3. The second project on which we have been working is a list of 365 daily reminders, most of them on hazards peculiar to our industry, which you can use on bulletin boards or for other purposes. In this way each workman will be reminded at least once during the year of the more serious hazards which we face. This text has now been completed and is in our secretary's hands, and I believe he will either print it in GRAIN in monthly installments, or issue a special pamphlet containing this data.

It is not yet too late to enter our 1944 safety contest and I urge you to do so. Remember that we are under no expense for carrying on this work, thanks to Clarence Turning. Without any overhead it means that all of the fee, which is \$5.00 per plant, goes back to you for safety awards and for special safety material, such as posters. This contest is the only means I know of for furnishing you with current safety data pertaining to our own industry. You really cannot afford to be without this service. We now have 59 entries for 1944, compared with 51 for 1943.

I consider the 1943 safety contest the best we ever had. We had more entries and more interest was shown



SETTING NEW HIGHS IN CAPACITY

From small country elevators, large terminal elevators and flour mills all over the continent come glowing reports of record breaking increases in capacity effected by the

CALUMET SUPER CAPACITY ELEVATOR CUP

You, too, can rely upon the elevator bucket with the Logarithmic curve for far greater efficiency and economy.

Write for form 35. Learn how much greater guaranteed capacity you can get from your elevator legs.

B. I. WELLER CO.

327 S. La Salle St.

Chicago 4, Ill.

Daily Reminders

2. When we hold our round table discussion I would like to have some



by the superintendents, and besides we had a fairly good safety record compared with other industries. You have all seen the score sheet which shows the 1943 figures in detail. With your help we should be able to reduce our frequency rate for 1944, and I hope we have few serious accidents so that our low severity rate will not take another jump as it did in 1942 when we had several fatalities.

Objectives for 1945

These are our objectives for 1945:

1. We want at least 100 entries in our Safety Contest. Will you help us get them? For statistical purposes we need more entries so that it will show a fairly accurate cross-section of the "experience" of our industry. This will be important if there are efforts made to increase compensation insurance rates in the future.

2. We desire suggestions for Safety Reminder Cards covering hazards peculiar to our industry. The National Safety Council will print these for us if the text is suitable and if our members will buy a considerable number. They will cost 1 cent each.

3. Some members have asked for special posters. These will be expensive, but perhaps we can arrange for some if you give us your ideas as to what is desired. We have been attempting to make the best poster selections possible, and a general selection of posters has periodically gone to the members entered in the Safety Contest.

Will you help us to attain these objectives? We also need your help to attain our main objective which is the elimination of preventable accidents. We must have a lower frequency rate for 1944!

Advocate More Magnetic Separators

The protection of handling and processing plant machinery from various sized pieces of tramp iron or other undesired substances is becoming increasingly essential to safe operation. An Iowa Super recently received in a load of bulk grain a large chunk of iron that stripped the belt of buckets. A feed plant Super says some tramp iron wrecked the hammer mill.

Most of the modern improvements in equipment do not cost very much. Often the neglect to install such improvement costs more than the installation of all such improvements, as were the cases above mentioned. Plants might well be equipped with smaller meshed receiving pit gratings, as well as reliable magnetic separators, such as Bill Gassler of Chicago's Calumet Elevator has.—Steve Halac, Chicago SOGES Chapter President.

Did You Ever See A Dream Walking?

You never saw a sack of feed chase a man out onto the shipping platform and then drop its full weight on his toe.

You never saw a crow-bar give a man a running start and then catch up with him and cut his finger off.

You never saw a hammer pass a man in a sprint through the assembly room and wallop him one on the head as it went by.

You never saw a power drill unscrew its anchor bolts, take out after its operator and then drill him full of holes.

No, sir, accidents don't chase workers.

If a sack of feed drops on a man's toe . . . if his finger is cut by a crow-bar . . . if a hammer whacks some part of a worker's anatomy . . . if a fellow gets tangled up with a power drill or any other machinery, it is because of something the man or a fellow worker did or failed to do.

Must Keep Reminding Him

The mistake of a worker can often be traced to inadequate instructions and supervisions by foremen.

This isn't a case of blaming everything on the worker just in order to make someone the goat. No, indeed. It simply is a fact that human beings—not machines nor tools or material—cause by far the majority of accidents.

And a sack of feed is no Mexican jumping bean that hops around looking for toes to light on. If a toe gets pinched, the toe got in the way.

Take a more complicated case. Suppose a machine part breaks or a nut comes loose and a break-down results that throws pieces of the machine every which way. Usually somebody gets hurt.

Whose fault is that? It's the fault of whoever is responsible for the maintenance and repair of machines. It may be the operator of the machine

or someone else. At any rate, the responsibility rests on some human being; not on the nut that came loose or the part that wore out.

No, accidents don't chase workers!

We Are NOT Winning

Let's face the unpleasant fact that we are not winning the War on Fire Waste. Losses, with their accompanying array of tragic deaths and injuries, are sharply increasing in spite of tremendous efforts to prevent them.

More and more of our real wealth both that which is vital to our Armed Forces, as well as to our civilian economy, is being obliterated for all time by fire. It is as effectively destroyed as though our enemies had bombed it out of existence, to the tune of now well over one million dollars worth daily. We probably have not seen the worst of it yet. The picture, even when hostilities cease, is an ominous one.

We members of this Association know what needs to be done to combat fire and fire hazards, and are everywhere active on the fire prevention battle line through our respective responsibilities. Our individual effectiveness has been greatly aided through the excellent service we receive through our memberships.—Herbert C. Brand, Quaker Oats Co., Cedar Rapids, President, SOGES.



ARGENTINE WHEAT ACREAGE is officially estimated at 15,640,000, a slight decrease from the previous estimate and about one million acres less than last year's sown area.

That's the Reason

"I never met a man I didn't like," said Will Rogers. He was more interested in the other person than in himself.

HIGH CAPACITY GRAIN CLEANING EQUIPMENT for TERMINAL ELEVATORS!



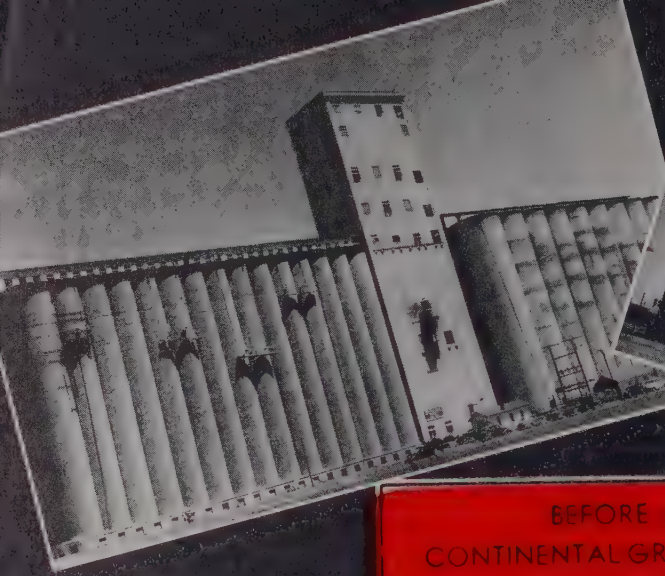
NEW PRIORITY-RATED
EQUIPMENT AVAILABLE
FOR ESSENTIAL NEEDS

Hart-Carter normally offers a complete line of special, heavy-duty cleaners for terminal elevators. Included are the 2564 Carter Disc-Cylinder Separator, combining discs and cylinders; and the all-cylinder 45 Hart Uni-flow Grain Separator. These machines offer a profitable answer to whatever cleaning, grading, separating or processing jobs you may be called on to handle.

HART-CARTER COMPANY

670 Nineteenth Ave. N.E.

Minneapolis, Minn.



BEFORE AND AFTER
CONTINENTAL GRAIN CO., ENID, OKLA.



CEILING UNDER
DOCK, HALF OF
ONE UNIT 798
UNITS



GRAIN ELEVATOR
DOCK AND WARE
HOUSES, NORFOLK,
VIRGINIA



MOORE-LOWRY FLOUR
MILLS, REA PATTERSON
BRANCH, COFFEYVILLE,
KANSAS



SEE!

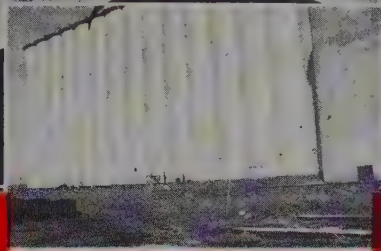
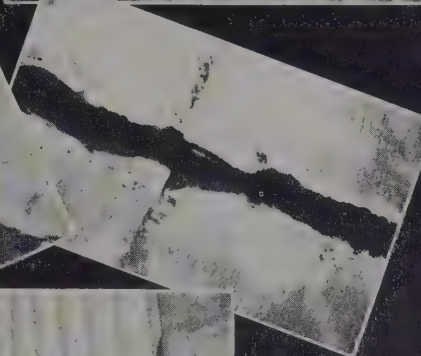
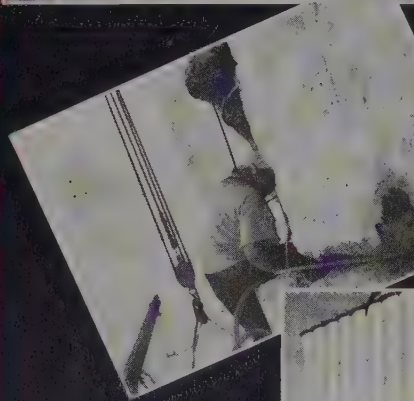
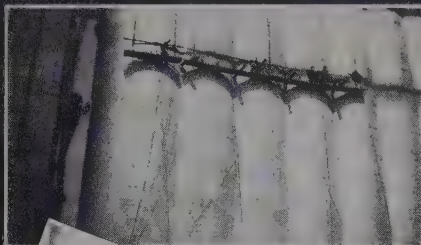
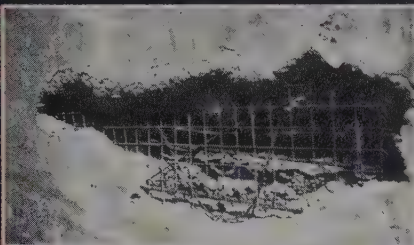
Here's what we mean when we say — Weatherproofing and Restoration jobs done by B. J. Many Company are *expertly* done . . . providing maximum protection against moisture and deterioration.

A B. J. Many Company job costs more; it's worth more; it lasts longer . . . and that's what counts. Cheap materials and faulty workmanship represent false economy.

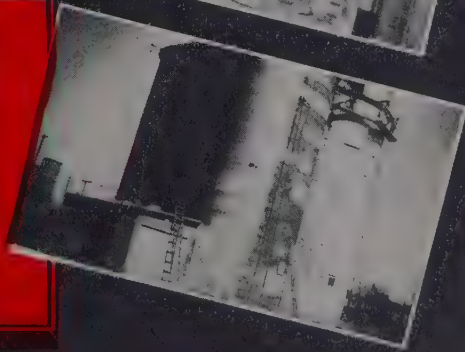
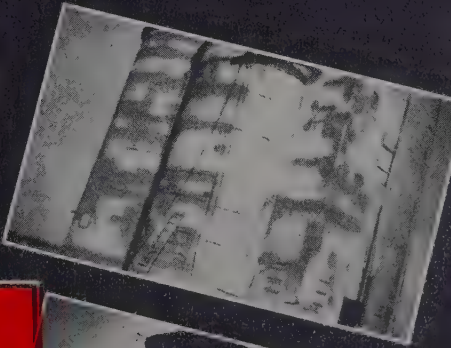
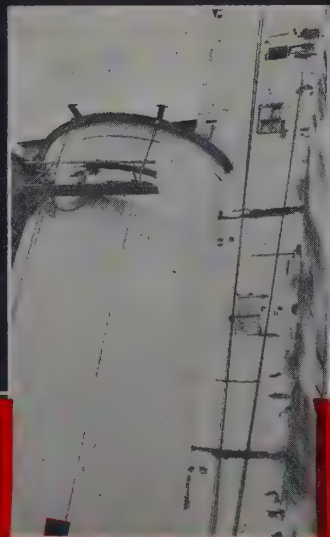
Plan now for post war protection of your properties. Write

B. J. MANY CO., INC.

30 N. La Salle Street - Chicago 2, Ill.
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SECURITY ELEVATOR CO.
HUTCHINSON, KANS.
VIEWS OF ELEVATOR B



SECURITY ELEVATOR CO.
HUTCHINSON, KANS.
VIEWS OF ELEVATOR C

CAREFUL COOPERING HELPS TO GET SATISFACTORY WEIGHTS

(From an address by Weighmaster J. A. Schmitz before the Chicago Chapter of the Society of Grain Elevator Superintendents.)

The members of the Board of Trade Weighing Department have much in common with the men who operate the elevators and industries in the Chicago switching district. While the matter of weights is not one of the headaches of the Superintendents Assn., yet the superintendents of our grain handling plants are vitally interested in weights, if for no other reason than that good weights attract

grain shipments to the market and volume is desirable to all of us.

It is true that the price paid is the prime factor in attracting grain to a market; it is also true that the market that has a reputation for good weights has

a definite advantage, for wherever the prices offered are close together, the good weight market receives the preference.

We of the Weighing Department are quite willing to take credit for the prestige that comes to our market because of our standing in the matter of correct weights, but we are also quite willing to credit the men who operate the elevators and industries in the Chicago district with the measure of credit due them because of their whole-hearted cooperation. Their cooperation has lightened our labors, but more important, it has aided our efforts to make Chicago weights still more dependable.

No Loss from Any Cause

THE supervision of grain weighing is more than merely reading the scale beam, as you know our certificate reads: "The contents of this car was weighed under the supervision of this department." This, to me, means that all of the car's contents is included in the weight recorded and reported. Now, in order for this statement to be true, the department's deputies must know that all of the grain was removed from the car and that all of it is included in the certified weight. There must be no waste, there must be no loss from any cause.

It might be well to point out why the attitude of you superintendents is important to the Weighing Department. It is apparent that the maintenance of all equipment used to handle the grain between car and scale is essential. The attitude of the repairmen and the weighmen, in fact, the entire crew, is a reflection of the attitude of the superintendent. Where the superintendent cooperates, we

find well maintained handling equipment, well cleaned cars, floor and pits, grain tight equipment, and good house records, complete cooperation between the department's deputies and the elevator crew, and this makes for "Correct Weights" at Chicago.

All Share Responsibility

AS YOU know, at Chicago the coopering of cars is the task of a cooperage bureau. Yet I feel that anyone in any way connected with the loading of a car with grain has a certain amount of responsibility for its condition. Here, again, working together will pay dividends, for be it remembered that the loading of an unfit car brings a measure of blame for everyone who had any part in its loading. What we repeat over and over to the country shippers applies to us here at Chicago, and that is that "The time spent in checking the fitness of a car box to carry grain is less than the time required to make suitable explanations for the loading of a car that is unfit to carry its load safely to destination."

May I point out that the placement of additional boards on the loading side of cars after the spouts are removed is the special duty of the loader. Where the grain will level higher than grain door barricade, leakage, of course, will result. Therefore, it is a good practice to make sure that there is ample protection against spills from the car when the grain levels. Now, the man that does the actual loading, that is, the man who handles the car spout, is in the best position to judge the necessary added protection to be applied. His must be the greater responsibility. The deputy weighman inspecting the car after loading is at a considerable disadvantage, particularly in the case of high loading.

In conclusion, I wish to reiterate that whole-hearted cooperation pays large dividends to all who have a part in the handling of grain in our market.

Our bonds today are the return tickets for our boys tomorrow.



Fifty Foot Car Troubles

For many years we have been trying to get our grain shippers educated NOT to load any 50-ft (or any off-set) box cars to us on account of not being able to handle them on our dumper. On account of the war situation and the box car shortage it appears the shipper loads any equipment furnished regardless of the thought of how inconvenient it is for the unloader. The shortage of labor aggravates the situation further.

This 50 ft and off-set equipment must be handled with power shovels at another point in our plant, and this delays the unloading many times for another day—to say nothing of requiring about 1½ hours per car against about 6 minutes on the dumper unloading regular equipment.

It might be well if the trade in general were reminded of this situation on occasions, for after the war many will refuse such cars or discount them.—Herbert C. Brand, Quaker Oats Co., Cedar Rapids.

Investigates Wet Corn

With two other grain association representatives I went to Chicago to investigate high moisture corn. We visited three large grain plants. Together with the Superintendents of the plants and inspectors we not only watched the corn unloaded, but inspected many cars on the unloading track. We found corn from 18½ to 30% moisture. We found good corn and a lot of rotten corn. At one plant with 18 cars on the unloading track, 9 cars were graded as heating, 4 musty and 5 okay. This was about the general run, possibly a little better than the average.

We saw cars with steam coming out of them and water dripping from the bottom of the cars. We saw cars where the corn was growing, moldy, some almost black and in a very sour condition. In some cars it was necessary to take a pick and shovel to unload them; the corn would not slide. Some of these cars were discounted 30, 40, and 50c a bushel.—Mark G. Thornburg, Sec'y, Western Grain & Feed Ass'n, Des Moines.

Grain Elevator for Cocoa

We are considering the construction of a group of silos, vertical cylindrical storage bins, for the storage of raw cocoa beans. Do you know whether it is true that one of the coffee companies is using this method of storage for coffee beans?—A. B. Snavely, Chief Engineer, Hershey (Pa.) Chocolate Corp.

Raises A Good Point

Just recently one of our branches realized that a blower they had purchased—to be used in blowing out electric motors—was creating a stream of sparks from its own motor. In checking into all of the blowers that we have we find that every one of them is equipped with the brush type of motor which DO throw sparks, and which MIGHT cause the very dust explosion that we are trying to prevent by blowing out our large motors.

I have contacted the two manufacturers of these blowers and one distributor and find that this is a point that they have never considered seriously enough to design a motor that wouldn't throw sparks. In my opinion the act of blowing out motors is a very dusty operation and a spark right then might be disastrous.

I believe a campaign ought to be started in "GRAIN" to correct this situation. There may be some blowers made with dust-tight or even induction-type motors, but if so I wish someone would tell GRAIN about them so we all would know.—George H. Steel, Safety Director, Ralston-Purina Co., St. Louis.

SAWFLY DAMAGE in the Prairie Provinces this year resulted in the loss of about 25 million bushels of wheat, according to a preliminary report.

They Break Into Print

Charlie Walker, A-D-M Super at Council Bluffs, and SOGES Chapter Prexy, and Harry W. Siebert, plant safety committee chairman, really got into the local papers in a big way with the SOGES Safety Trophy won for his scratch-free 1943 record and the 3-year company plaque shown.



New Elevator About Completed

The first unit of a 1,500,000 bu elevator under construction for the soy bean division of General Mills at Belmond, Ia., is about completed. The 210 ft headhouse is augmented by six 130 ft tanks of 75,000 bu each. Fourteen more tanks will be built and the plant placed in operation shortly. A sugar beet plant adjoining is being converted into a processing unit. W. E. Plumerfelt is manager of operations, Bruce P. Neil is production superintendent, and John F. Flynn office and traffic manager.

FRANCE will be self-sufficient in wheat and oats this year, states the London press.

New Million Bu Plant

To make it possible to handle barge grain, the Indiana Grain Co-operative, Inc., has leased 300 ft. frontage on the Ohio River in Louisville on which to erect a 1,000,000 bu elevator. The firm operates an elevator in another part of the city.

New Soy Plant For Swift

Building operations are expected to commence shortly on a modern soybean oil mill in Frankfort, Ind., for Swift & Co., Chicago. In addition to large storage facilities, a processing and extraction building will be erected on a 24-acre plant site.

YOUR MONEY— AND A WAY TO SAVE IT!



You can't determine the price of a belt until you discard it!

Maintenance and service life (or output) must be reckoned in its ultimate cost and however great this may be, **YOUR MONEY PAYS THE BILL!**

Slash costs with REXALL Belts on your heavy-duty legs and conveyors. For proof that convinces, let us send you genuine performance records made in the plants of our customers, of whom

OVER 80% HAVE BEEN ON OUR BOOKS 15 YEARS OR MORE, and

MANY SINCE 1910!

PREWAR QUALITY — PROMPT DELIVERIES

IMPERIAL BELTING COMPANY

1750 SO. KILBOURN AVE.

CHICAGO 23, ILL.

Hopper Cars Answer Unloading Problems

Unloading Methods Archaic

A COMMITTEE having been appointed by the SOGES to study the methods and suggested improvements for the unloading of grain and bulk grain products from railroad cars, it might be well to first review the methods in vogue in the various plants. It is and has been recognized for some time that our present methods for the unloading of cars at the grain elevators and processing plants are costly, involved, and to a great degree archaic as compared to unloading methods used in other industries for the handling of bulk materials.

We recognize that numerous attempts have been made seeking improvements as to methods and savings as to labor. From time to time suggestions have been made to the railroad companies that they improve or modify cars in use to permit the easy self-unloading of railroad cars involved in the transportation of grain and bulk grain products.

The railroads have shown no particular interest in cooperating on this problem. As a matter of serving their own interests we appreciate their reluctance to do so—since it would obviously involve the diversion or elimination of some of their present box cars and would result in considerable cost to the railroads.

Competition Dominant Factor

DESPITE this candid objection, however, where they have been forced by competition or necessity to modify or to completely change their equipment, they have done so to the mutual benefit of themselves and their customers. As a case in point we cite the improvements in rolling stock for passenger service, the improvements in freight locomotives, the increase in speed in the handling of freight, and the development of various and sundry special purpose cars by and with the cooperation of both users and carriers.

It is the work of this committee to further study the proposition of freight cars for grain and bulk grain

By **SIDNEY I. COLE**, Committeeman
Chicago SOGES Committee on Car Unloading
Vice President, Industrial Erectors, Inc.

An Aggravated Car Unloading Situation, Born of Labor Shortages, Equipment Scarcities and Delayed Deliveries—To Say Nothing of the Red-Hot Corn Cluttering Every Siding—Prompted Members of the Chicago Superintendents Society to Go to Work on Permanently Solving the Problem.

This Is the First of Four Articles Prepared by Members of That Committee, Each of Which Will Develop Different Phases of the Premises Which All Hope Will Result in a Highly Desired and Mutually Satisfactory Conclusion.

Archaic Unloading Methods, Post-War Planning, and a Solid Foundation for Future Thinking Is Aply Set Forth by This Author. Suggestions, Criticisms, and All Ideas Are Promptly Coveted—All of Which Should Be Addressed to Our Care.

products handling with the view of presenting to the railroads a comprehensive survey both as to the necessity and the usability on the part of the roads and the industry for a

freight car which would be self-unloading and could be used by our industry as well as other bulk handling industries.

We Use 37,000 Cars a Week Minimum

SEVERAL car building companies have developed built-in hopper-bottom cars with special spill proof gates which have proved practical in the handling of bulk materials such as sugar, chemical salts of various kinds, lampblack, cement, and many other powdered and granular materials. These cars are in daily, successful operation on the roads.

It is true that most of these cars are presently either privately owned or leased. None of these other industries, however, have been able to present the demand for cars such as exists in the grain industry. Consequently it is probable that a cooperative effort on the part of all of the interested bulk handling industries would ultimately result in the development of a car suitable for most or all of them—and a car which would have year round use.



PROFIT by EXPERIENCE

THE DAY organization has been solving dust control problems for 63 years. DAY facilities include engineering, fabrication and installation of entire systems—large or small—including all required sheet metal work. This experience and equipment are at your service.

The DAY DUAL-CLONE

This patented Dust Collector is the key to the uniformly successful operation of DAY DUST CONTROL Systems. Its advantages include low resistance, high separating efficiency, compact space-saving design, easy installation.

The Importance of DUST CONTROL

has been emphasized by serious dust explosions that have occurred recently in the grain and milling industry. Compared with the damage done by these explosions, the cost of a dust control installation is very small indeed.

*Important information for you in our booklet
"DAY DUST CONTROL". Write for a copy.*

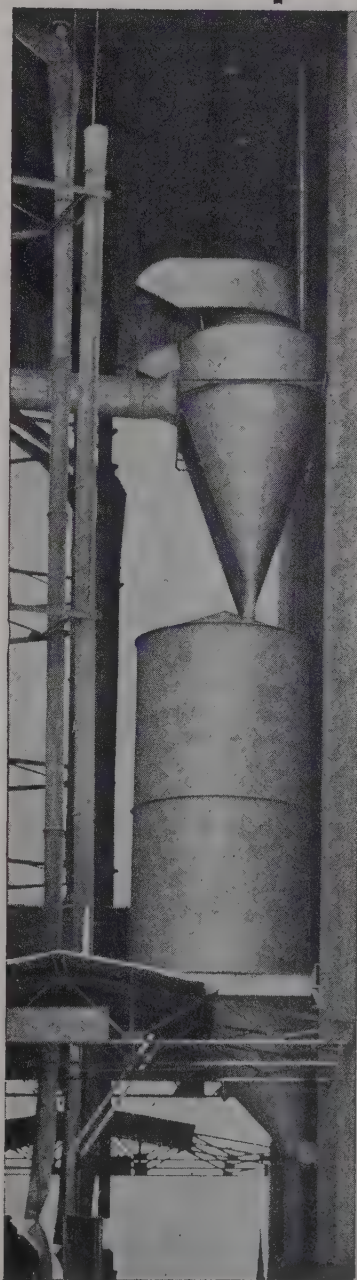
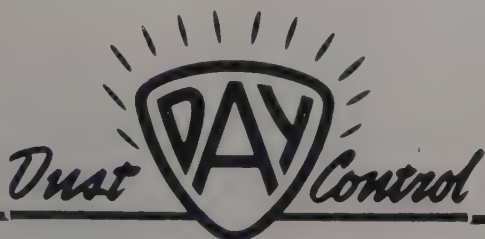
THE DAY COMPANY

814 Third Ave. N.E.

Minneapolis 13, Minn.

In Canada: The DAY COMPANY of Canada, Ltd.

613 McIntyre Block, Winnipeg.



One of many types of DAY installations at a grain elevator. The dust is discharged directly from the dust tank into box car below.

Potent Weapon Against Trucks

SUCH a car would materially reduce the cost in unloading to the industries involved, and should aid in increasing or maintaining the railroads' revenue by giving them a potent weapon against competition, particularly from the trucks. On that basis this project should have an appeal to the railroads as a post war project when, despite any desirable regulations seeking to protect the railroads, they would find themselves in competition with more aggressive and progressive transportation facilities.

Reviewing the methods now available for the unloading of grain and bulk material, other than hopper-bottom cars, we point out that the most common unloading method in the industry is the use of the Clark shovel in both its original form, as of fifty years ago, and its more recent modification using a semi-automatic clutch and return which permits the speeding up of the operation for unloading the cars.

A second method is the use of the pneumatic unloading system wherein the grain is sucked out of the car via suction hose and conveyed into the track-shed pit or the receiving hopper ordinarily on top of the elevator, and then blown or spouted to the various tanks. The advantage to this type of equipment is that it both unloads and elevates the grain as one continuous operation. But this type of equipment has a high initial first cost and consumes a larger amount of power. However it has the advantage of the elimination of the elevator leg and reduction in the amount of labor required to unload the car. It is also safer and less dusty in operation than the Clark shovel.

Suggestions Wanted Now

ATHIRD, and comparatively recent innovation, is the car dump or semi-car dump which has the advantage of rapidly unloading the car with a minimum amount of labor. However it has the tremendous disadvantage of high initial cost, both as to equipment and installation. It is inflexible in that the cars must be of predetermined type, size, and capacity and cannot unload cars of random length except within limited tolerances. It eliminates none of the ordinary equipment required for unloading at the elevator.

In conclusion, it is apparent that with rising labor costs and an indication that the high labor cost will continue, and, further, with the more complete mechanization of kindred in-

dustries, it will be increasingly difficult to obtain and to keep the necessary labor for unloading railroad cars by the usual methods and at reasonable cost. It, therefore, becomes increasingly self-evident that a concerted, thorough and aggressive study of this problem is necessary on the part of individuals interested in the successful and economic operation of the large grain elevators and processing plants of this continent.

Grain Exports Up 70%

Cars of grain unloaded at tidewater for export during October totalled 3,879 compared with 2,285 the year previous, or an increase of 70%.

Government Sells Grains, Cereals

Sales of government-owned grain and cereal products by WFA during October totalled \$208,224, representing approximately 17% of all food sold into civilian markets by WFA during the month.

Wheat Export Program

Programs to facilitate the exportation of wheat and flour in accordance with provisions contained in the Surplus Property Act of 1944 have just been announced by WFA. Both will be made available by CCC to exporters at competitive world prices.

Distillers May Use No. 5 Corn

Industrial alcohol distillers may use No. 5 and sample grade corn, says WPB. Because of the high moisture content most of this corn will be used in the Middle West, the eastern grain distillation plants remaining on cheaper grains, especially grain sorghums.

Estimated 1945 alcohol requirements will be 548 million gals., and available supplies of 594 million gals., says WPB.

197 Mills Grind 84% Of Flour

During September, 1,010 mills ground 46,462,958 bu wheat compared with 46,670,552 bu ground by 1,006 mills during August and 45,565,340 bu ground by 998 mills a year ago. Of the 1,010 mills reporting, 41 reported the production of granular flour. Twelve of the latter, with a daily capacity of 22,976 sacks, produced granular flour exclusively.

Of the 1,010 mills reporting, 197 with a daily capacity of 1601 sacks and over ground 84% of the flour reported.

Carloadings Decline 4.1%

Carloadings of grain and grain products declined 4.1% for the first 46 weeks of 1944 as compared with the same period last year, in line with predictions by the Regional Shippers Advisory Board early this fall. Compared with 1942 loadings are up 17.2%. Loadings were, for the weeks ending:

	1944	1943	1942
Nov. 11	51,511	51,988	41,340
Nov. 4	54,644	56,428	42,006
Oct. 28	55,721	58,181	47,320
Oct. 23	56,718	59,765	47,665

Record Corn Crop

This year's corn crop is currently estimated by USDA at 3,258,378,000 bu., a record production. Last month's figure was 3,196,977,000 bu., whereas last year 3,076,159,000 bu. was produced. The 10-yr. average is 2,369,384,000 bu.

Corn Grind Improves

During October eleven corn refiners ground 9,992,139 bu for domestic consumption, as compared with 8,797,169 bu ground last month and 10,773,300 bu a year ago.

Grain Cargoes Increase

October movement of grain on the Great Lakes showed a sizable increase over grain tonnage for October, 1943. The increase was 23,877,462 bu. for a total of 37,376,712 bu. "The present fleet in service is ample to care for the government-announced quotas of all commodities for the remainder of the year," advises ODT.

Wheat Flour To Cuba

To complete a commitment made by the U. S. government to supply Cuba with sufficient wheat flour to meet 1944 requirements, WFA will make payments to exporters on 300,000 bags (100 lbs) for shipment during the remainder of the year.



SHOP VOCABULARY

by h. w. puetz, milwaukee

SUPERINTENDENT (The man on the flying trapeze): Fronts for all foremen and employees to brass hats and likewise fronts for brass hats to all foremen and employees. A good job is you don't go nuts.

PRODUCTION EXPERT: The man that gets all his good ideas from some other plant.

PERSONNEL MANAGER: The guy that gets too personal with your past record and wants to know if you have any birthmarks or scars, and where?

SAFETY ENGINEER: The guy who comes around after the accident, but can never see a damn thing wrong before the accident; claims this procedure is ethical.

MAINTENANCE MAN: The genius who has a hundred jobs in the fire and then forgets where in hell he left the fire.

FOREMAN: The bird that requests employment department get him a high class technician (salary no object) and then puts him to work unloading cars and sweeping.

ASSISTANT FOREMAN: The fellow that takes the blame for the foreman's mistakes.

FOREMEN'S SAFETY MEETING: A place where foremen come to rest and pass the buck and have to be advised each month that they are not to compete with General Eisenhower's casualty list.

SHOP GREMLINS: Guys complaining about nothing being done right, yet never in their life dropping a good idea into the suggestion box.

TIMEKEEPER: Bawls you out for not turning in card immediately, however forgets to credit you with 6 hours overtime a month ago.

WATCHMAN: The man who never pays any attention to you, except the day you leave your pass and button home and then gives you the 3rd degree and phones your boss for identification.

SWEEPER: Seldom forgets to leave broom, shovel or hand truck in aisle for others to fall over.

TRUCK DRIVER: The bimbo who backs into your shipping platform like he wants to push the building back into the next block.

INFORMATION DESK: Where you get hot and cold waiting to be directed to the wrong person.

IST AID ROOM (sometimes called "worst-aid" room): Where the gang lines up each morning for aspirin.

COMPANY NURSE: She frets and frivols all over you until at long last you say: "I'm glad that's over with." But oh no, she shyly warns: "I'm just getting you ready for the doctor."

Patient mentions: "I only have a headache," and nurse mumbles something about 'a Keely cure.

SHOP GLAMOUR GIRL: The apple of the boss's eye, but a pain in the neck to all the other gals.

SHOP DAME: The gal who knows all the answers to wrong things.

CAFETERIA MANAGER: The forgotten man who lies awake nights figuring how he can give you a dollar meal for 35c without being insulted because it was not a T-bone steak in mushrooms.

QUITTING TIME: A scene never to be forgotten; if you are in the main aisle at this time and doing under 35 M.P.H., look out or you may be crushed like last week's pay check.

C. C. C. Fumigants Plus Practical Application — GET RESULTS!

Over 4,200 EVER NORMAL granary bins treated in 1943—8½ million bushels of wheat with guarantees against all insect infestation and against re-infestation for a ten-month period.

Largest Grain Fumigation Contract Ever Undertaken



Fully Equipped For Any Fumigation

Contract awarded July 1. 360 bin sites over 6,500 square miles. First fumigation completed all bins August 26, 1943. Only nine bins graded live weevil under U. S. Grain Standards at expiration of contract.

COOK CHEMICAL CO.

2020 Wyandotte Street Kansas City 8, Mo.

GRand 5244

KEEFER ADDRESSES CHICAGOANS

W DEAN KEEFER, outstanding safety director formerly in charge of the Industrial Division of the National Safety Council and now Vice President of Lumberman Mutual Casualty Co., Chicago, addressed the Chicago SOGES Chapter's last meeting and really unloaded.

Emphasizing the necessity of better Job Training of new employees he asked: "When you were put to work were you instructed how to work, how to work safely, how to work efficiently, thoroughly and properly? Of course you weren't! Well then what about the new men you are putting to work? Are you instructing them in their new job adequately?"

"Job Analysis is the next important step, particularly today," he said, "with present acute labor shortages. I recently visited a plant where there were 82 men working in one department. This unit had a frightful safety record. Every one of the 82 men were doing the same kind of work—but when we analyzed it we found they were doing the same thing in 14 different ways. Every method can't be equal in efficiency and safety. There can only be one best way. Consequently we got all the men together and determined the best and safest way, and now everyone does it that way."

Supervision Can Prevent Accidents

UNDER the heading of Supervision, the speaker said: "A lot of men know how to do work properly, efficiently and safely, but many have to be kicked around and kept from taking dangerous short-cuts. Production and safety are linked hand in hand. If you fire a man for one infraction you must fire every worker who breaks the rules. Supervisors must accept the responsibility of infractions of rules, for supervision can prevent accidents."

"Having departmental supervisors compete among themselves for the best safety records will result in the same foreman being at the bottom of the list the first few months. He finally awakens to the fact that he should be improving his record and will work hard to get off the bottom of the list. It is only then that you start to put safety right where it belongs."

"The key to it all is an active management interest and participation in safety. Management must be sold first before employees will become sold," Mr. Keefer concluded.

SOGES safety contest trophies for 1943 were awarded Chapter winners, inasmuch as most of the recipients were unable to be present to receive them when given out at the time

of the annual convention. The showing of a sound film on "Saving Manpower Through Proper Materials Handling" was then shown by Chapter President Steve Halac of The Glidden Co.

"The government wants to prevent 1,000,000 accidents this year," Mr. Halac pointed out. "The war is still going on, consequently we must redouble our efforts to conserve every possible man-hour through accident prevention in the interests of speedy victory."

Among the 28 present was Orland Lehnus of General Foods, Kankakee, the only visitor this month. Lloyd Forsell of Albert Schwill & Co., and Leonard Danielson of Arcady Farms Milling Co., were added to the Car Unloading Committee and discussion followed on the work being carried on. Russell B. Maas, Screw Conveyor Corp., gave the details of the December "Smoker" of which he is chairman. Rudy Skala of R. J. Skala Co. was added to the Ladies Night Committee slated for January 20th, plans for which were outlined.

Plan Ladies' Night

The Chicago SOGES Chapter announces its eighth annual Ladies' Night dinner party at the South Side Swedish Club on Jan. 20th. Lloyd Forsell of Albert Schwill & Co.; R. J. Skala of R. K. Skala Co., and Gilbert Lane of Arcady Farms Milling Co., are in charge. Usually a number of out-of-town folks manage to arrange their business trips to include this affair.

GERMANY is liable to suffer severely from the lack of bread this winter in the cities, reports Broomhall. Small country mills will have to furnish the country with its flour, as the large plants are being destroyed by bombing.



Chicago SOGES Chapter Forges Ahead

At the time of this writing the Chicago SOGES Chapter numbers 95 members on its roster, states Sec'y Frank Jost, Gerstenberg & Co., "And from the amount of interest reflected," says he, "we'll have passed the 100 mark by the time of our annual Christmas party."

K. C. and Chicago Tied

Kansas City and Chicago SOGES Chapters are tied in the matter of interesting new membership in the association. Likewise the non-chapter group, which embraces quite a sizeable number within the Society, is tied with the Minneapolis unit. And now that the box car situation is tightening up we prophesy a real old-fashioned pitch battle for supremacy. Here is the way it looked to Harold Wilber, A. E. Staley Mfg. Co., Decatur, Ill., SOGES 1st Vice President, at the time we went to press:

Kansas City Chapter	4
Chicago Chapter	4
Non-Chapter Group	2
Minneapolis Chapter	2
Total	12

John Blowers Tops List

Among the active new-member getters John Blowers, Standard Milling Co., Sec'y of the Kansas City SOGES Chapter, heads the list. Since the June convention John has chalked up three new ticket-holders. Active boosters, in the order of their accomplishments, include:

- 3—John Blowers, Standard Milling Co., Kansas City.
- 1—Clifford C. Steiner, Central Soya Co., Decatur, Ind.
- 1—Gilbert Lane, Arcady Farms Milling Co., Chicago.
- 1—Lloyd Forsell, Albert Schwill & Co., Chicago.
- 1—Leonard Danielson, Arcady Farms Milling Co., Chicago.
- 1—Ward Stanley, Standard Milling Co., Kansas City.
- 1—John Mack, Standard Milling Co., Buffalo.
- 1—A. P. Jurgens, A. P. Jurgens, Co., Minneapolis.
- 1—Russell B. Maas, Screw Conveyor Corp., Hammond.
- 1—Herbert C. Brand, Quaker Oats Co., Cedar Rapids.

One Solution For A Surplus

A dispatch from Los Angeles indicates one solution for any future grain surplus. Colville College, called the "cow college of Oklahoma," sent a crew to the west coast to compete with Stanwood's shell oarsmen, The "Aggies," trained to row in a sea of oats, took the honors.

PREFERRED!



SUPERINTENDENT WILLIAM H. GASSLER SAYS:

"As far as we can determine at this time, the workmanship and materials used on our Calumet Elevator in 1939 have proven quite satisfactory."

Caulking operations are shown in the center view; at the left the walls are being prepared for our elastic *Surfacite*—which is shown being applied in the view on the right.

Surfacite *Waterproofing*



... Preferred because all disintegration and cracks are repaired with GUNITE, which is stronger than concrete, is hard, dense, waterproof with perfect bond to the old concrete.

... Preferred because then all surfaces are covered with the soft, elastic material—SURFACITE—many times the thickness of ordinary waterproofing.

... Preferred because SURFACITE compensates for movement by a tough elastic hide and with a long-life flexible material bonded to the concrete.

You, too, will PREFER our services after we have gone over your problems, submitted facts, ideas and costs.

JOHN D. BOLTON & COMPANY
GUNITE CONTRACTOR

20 NORTH WACKER DRIVE

CHICAGO, ILLINOIS

Omaha Managers Entertain

Managers of the grain handling and grain processing plants in the Omaha market entertained their Superintendents at the regular monthly meeting of the Omaha-Council Bluffs SOGES Chapter on Nov. 14, with 44 present. They did a bang-up job, serving a tasty turkey dinner at the Omaha Athletic Club.

Mr. D. O. "Dud" Aller of Butler-Welsh Grain Co., who was elected President of the Omaha Grain Exchange earlier in the day, opened the meeting and introduced Chapter Pres-

ident Charles F. Walker of Archer-Daniels-Midland Co. who served as Emcee from there on. Citing the proverbial case of the stranger who could always see things that one would overlook, Pres. Walker introduced Charles



E. Harbin of the Underwriters' Grain Ass'n, who spoke on: "The Insurance Inspector, Your Friend."

Calling to mind the funny things one runs onto when without a gun, Frank E. "Slim" Carlson, one of the friendly inspectors Mr. Harbin referred to, next spoke. Slim gave a lot of pertinent data on the causes of fires along with the percentages of each cause resulting in serious losses.

The main topic after these interesting talks was the unloading of grain cars with the new mechanical inventions previously referred to in "GRAIN." The lively discussion following reflected the intense interest in this subject. Slim Carlson told of one device he saw in Kansas City called the "Shovel Boy." It was not automatic, and the shovelers would not let it work, however with some new hands in this department the equipment was made to work very well.

The after-dinner talk in the lobby was about drying this hybrid corn with its extra large and small kernels. All agreed it was quite a problem getting uniform results.

John Make Succeeds Peltó

John Make took charge of the Peavey Co.'s "Globe" elevator in Superior on Oct. 15th, succeeding Matt Peltó, who retired. He will be assistant to Oscar W. Olsen, who has been made general superintendent of both houses.

Omaha Elects New Officers

D. O. Aller of Butler-Welsh Grain Co. was elected president of the Omaha Grain Exchange at a directors' meeting Nov. 14. C. H. Wright of Nebraska-Iowa Grain Co., and R. Earl Miller of Updike Grain Co., were made vice presidents. Arthur McKinley of the Omaha Elevator Co. was appointed treasurer, and Frank P. Manchester was re-elected secretary.

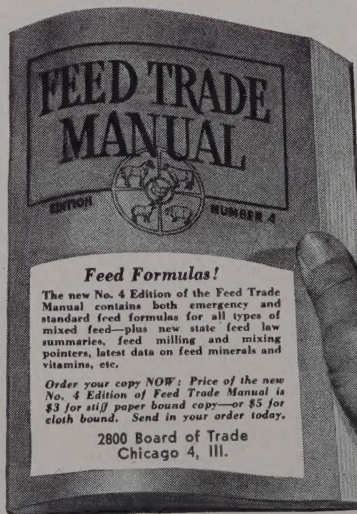
Wagner to Cook Chemical

George B. Wagner, formerly entomologist for the Millers National Federation, has become associated as vice president with the Cook Chemical Co., Kansas City fumigant manufacturers. Entering the service of the U. S. Dept. of Agriculture for work on the control of insects in stored grains and flour mills, Mr. Wagner put his education in the Kansas State College—where he earned his Master's degree in Entomology in 1929—to good use. A number of comprehensive reports went to his credit during this association.

Three years ago this month he left the department to become associated with the Federation as their entomologist, with headquarters in Chicago, but Uncle Sam had different ideas for him. After thirty months of service, which included the "D" day invasion of Europe, he returns to take up his research studies and consultation service.

Pres. Brand's Birthday Dec. 27

SOGES President Herbert C. Brand of Quaker Oats Co., Cedar Rapids, will celebrate his natal day 24 hrs. 1 min. after Christmas. At least his birthday falls on Dec. 27th, and while we're not suggesting clogging the mails with odd bits of indescribables, practical or jocular, his address is 391 Memorial Drive S. E.



All The Ups and Downs

Appraisal Service Co., Minneapolis, is sending its customers a multi-colored chart of the business booms and depressions since 1775 through the present period.

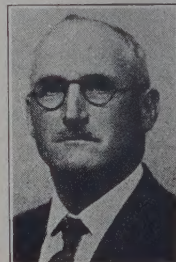
Stanley to Wyandotte

Ward Stanley has been transferred as Super of the Standard Milling Co.'s Missouri Pacific elevator "B" to the "Wyandotte," succeeding John Blowers who is now assistant to Manager Oscar Cook in the Board of Trade office. John is secretary-treasurer of the K. C. SOGES Chapter.

Winfield Succeeds Shaw

I want to tell the boys about my successor here at the CPR elevator in Port McNicoll. He is Bruce Winfield, a man of whom I think very highly. He was a young chap in the elevator when I came here, and there really wasn't a job around the plant that he couldn't handle.

It wasn't long until he was head millwright, and his older brother whom he has succeeded here as Super, was general foreman. When the company was in need of good men at their St. John (N. B.) elevator in 1938, Ken Mil-



ler, my clerk and assistant, went down as general foreman, and Bruce Winfield as head millwright. They did a wonderful job. Ken was later made Super and Bruce general foreman.

When the company realized recently that this plant needed a bit of revival they brought Bruce back as Super, and his six years' experience in St. John added to the knowledge he already had has certainly fitted him for the position. I feel that the company is fortunate to have him in their services, and when you and all the SOGES boys meet him at the next convention you can judge for yourself.—Jim Shaw.

Blue Ribbon To Vic Reid

He did it! His is the only one returned to the Secretary's office in several months. That's one less to have to worry about.

Yes sir, Victor H. Reid, able sales manager of the Hart-Carter Co., Minneapolis, returned his SOGES convention badge. "Now," says President Brand, "if a couple of hundred more members and visitors would go and do likewise, then we wouldn't have to be worrying about how we're going to tag the convention delegates at our next convention. Thanks, Vic."

POSTWAR MAGIC CARPET



Sewell, Williams To Advisory Group

W. S. Sewell of Strong-Scott Mfg. Co., Minneapolis, and W. M. Williams of B. F. Gump Co., Chicago, are serving for the grain, feed and flour industry on the government's newly formed Food Machinery Industry Advisory Committee.

Matt Peltó Retires

Matt Peltó left Duluth with his wife on Oct. 30th to go to Fort Bragg, Calif., for the winter. After 52 years with the Peavey interests, he is retiring. His last position was as superintendent of the Globe Elevator in Superior.

He began working at 18, back in the Spring of 1892, when there was an earlier-than-usual opening of navigation. Starting on the night shift as a fireman and oiler, Matt stuck it out through the busy season. After a few months' layoff he went to work at the Daisy Mill at Superior, helping to unload the first car of wheat received at that new elevator.

Recalled to the Globe, Matt later went to the company's Belt Line Elevator, becoming assistant foreman at the Peavey House at the turn of the century. With the rebuilding of the plant following the great fire of 1905, Matt became superintendent, later taking over the Globe Elevator, where he remained until his retirement. That was back in the days when the Peavey interests owned their own rolling stock and leased same to the Omaha Ry.

Several dozen of his friends gave Matt a dinner party before his departure, but we have not heard of his pulling any tricks like he did on his boss, Peavey Heffelfinger, when Matt's famous lung-tester slyly backfired and covered the former's face with soot.

Get Aerated in Windy City

Visitors to the Windy City during the past month include: Earl R. Evans, Evans Elevator Co., Champaign; Frank Blodgett of Weevil-Cide Co., Kansas City; Art Osgood and Ernie Granzow of The Day Co., Minneapolis.

Changes At Minneapolis

Mr. A. C. Weberg is Manager for Ralston-Purina Co. at Minneapolis, and Mr. Con Hingher is Superintendent, succeeding Mr. C. E. McCartney, former manager, and Mr. M. M. Noxon, former Superintendent, both of whom resigned October 1st. Mr. Weberg has been with the company at Minneapolis a good many years. Mr. Hingher was transferred from Denver.

Harry Douville Retires

The many friends of D. Harry Douville will regret to hear of his forced retirement from his inspection duties with the Underwriters' Grain Ass'n. Mr. Douville's health will not permit his continuing in this work and he is being pensioned as of Nov. 1. We know that you will all join us in wishing Harry many years of happiness. His address is Hayes Hotel, Chicago 37.

Much Credit to Associates

The annual "Associates Night Smoker" put on collectively by the suppliers of the SOGES Chicago Chapter this year is in charge of Russell B. Maas, Vice President of Screw Conveyor Corp., Hammond. Serving with him for this Dec. 9th affair are Don Bowden of Materials Handling Equipment Co.; Marshall George of B. I. Weller Co.; Paul Naehner of B. F. Gump Co., and H. G. Onstad.

Spectacular Fire Gulps Up Elevator

Fire demolished the warehouse of Rosenbaum Bros'. 1,200,000 bu Belt Elevator in Chicago this month in one of the biggest blazes witnessed here in many years. It took 300 firemen 5 hours to bring the holocaust under control, and will take many days, if not weeks, to quench the smoldering grains.

An explosion blew out a large section of the east wall of the elevator, fire department reports state, soon after the blaze broke out in the head. Fifty employees escaped from the plant as the initial flames soared 200 ft skyward. None was injured. The 9 story Vitality Feed Mills plant adjoining and the storage tank annex were saved by firemen answering a 5-11 and three special alarms.

SUPERINTENDENT WANTED for Soybean Processing plant in Illinois; or experienced Expeller operator who can handle men, maintain machinery and production, competent to fill position of Superintendent. Good opportunity for man with right education, experience and character. State full information in first letter. All replies confidential. Address 1-S-1, % "GRAIN," 2800 Board of Trade, Chicago 4, Ill.

Henry Shipper Dies

Henry Shipper, 66, retired F. H. Peavey & Co. officer, died at Glendale, Calif., Oct. 16th after 10 months illness. He was assistant manager of the Monarch Elevators terminal department when he left in 1939.

Bill Coufield Dies

The first of November saw this war-torn world even poorer than generally reckoned, for William E. Coufield of Chicago passed away. Joining the Superintendents' Society a week before it was formed, this Number One member was always an ardent booster, going out of his way—as he did for everyone—to boost its reputation.

General Superintendent for the Armour Grain Company back in the old days, Bill's association with the industry had its roots deeply imbedded in Chicago's early grain days. Later he was Super for the old Rosenbaum Grain Corp. until deafness forced his retirement. Unwilling to lose his contact with the industry entirely, Bill took a job with the grain trimmers, but never once did he lose interest in SOGES.

Typical of his interest in dust explosions are several letters awaiting publication which he wrote shortly before his demise. A live wire to the very end, Bill will be missed for his pleasant smile, his hearty handclasp, his genuine back-slap, and his generous supply of common sense and foresight.



Mr. and Mrs. James Shaw celebrated their Golden Wedding Anniversary last month.



GRAIN FUMIGATION NO LONGER LOOKED UPON AS

"A Skeleton in the Closet!"



Doors are no longer bolted and shades drawn while grain is being fumigated, because it is now generally conceded that grain stored in *any man's* elevator *may* be subject to infestation; that infestation s-p-r-e-a-d-s unless effectively controlled for bugs do not lie down and die of their own accord during their natural span of life . . . they *multiply*.

Weevil-Cide is formulated to provide effective insect control *without* endangering health of user . . . *without* risk of fire hazard. It is safe, convenient to apply and economical.

THE

Weevil-Cide

THE DEPENDABLE GRAIN FUMIGANT

COMPANY

1110 HICKORY STREET
KANSAS CITY, MO.



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TO

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CHOICE OF THE GRAIN TRADE